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PATENT****Submission Date: April 22, 2008
Pre-Appeal Supplemental Paper****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: **Richard Morgal** Confirmation No.: **1563**
Serial No.: **10/821,593** Group Art Unit: **1795**
Filed: **April 9, 2004** Examiner: **Hall, Asha J.**
For: **METHOD AND APPARATUS FOR SOLAR ENERGY COLLECTION**

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**PRE-APPEAL SUPPLEMENTAL PAPER
CORRECTION OF ERROR REGARDING LAING**

Examiner Hall,

This supplemental paper corrects a serious error made by the Applicant's representative in respect of the Laing reference. The error was based on a long-standing misunderstanding, by his representative, of the Applicant's description of the Laing technology, and was discovered while in process of preparing a Pre-Appeal Brief Review Request. That paper, together with a Notice of Appeal, must be filed by next Monday, April 28, so prompt consideration of the correction set forth below will be greatly appreciated.

The Applicant's representative believed that Laing employed the technique of cooling concentrating photovoltaics "wherein the liquid bath is a coolant that provides primary cooling of the conversion device through thermal contact with an exterior of the support structure," as required by independent Claim 1 of the subject application. It was with some horror that he suddenly realized that his long-standing belief was mistaken. This mistake is corrected, and to a small extent explained, in the following remarks.

The Laing reference DOES NOT teach the required cooling features, but, to the contrary, teaches cooling very much as taught by Cluff: cooling the photovoltaics by forcing cooling liquid through tubes adjacent to the photovoltaics. No Laing reference predating the priority of the subject application will show cooling such as required, because John Laing never developed it.

The undersigned frankly thought that John Laing had developed cooling as required by Claim 1, but that Laing was unable to implement such cooling in a two-axis tracking pontoon system. This view appeared to be confirmed by the vehement rejection of two-axis tracking in the Laing reference. It remains the case that such teaching away from two-axis tracking would provide ample legal grounds to preclude *prima facie*

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obviousness based on Cluff in view of Laing, if Laing did in fact suggest the required cooling features. However, those legal arguments need not be reached, in view of the fact that both the Cluff and the Laing references, taken individually or in combination, fail to disclose the cooling features required by Claim 1.

In regard to the Examiner's citation to Laing for the cooling features required by Claim 1, it is respectfully submitted that the Examiner's description of a complicated path of cooling water (in the Office Action of November 26, 2008) did not, in fact, conform to or satisfy the features required by Claim 1. Claim 1 recites in part (emphasis added): "wherein the liquid bath is a coolant that provides primary cooling of the conversion device through thermal contact with an exterior of the support structure." Laing, like Cluff, provides primary cooling through thermal contact of a cooling liquid with the inside of a cooling tube, which is not an exterior of the support structure. Even to the extent that the exterior of pontoons in Cluff or Laing are in contact with the pond, such contact serves only to support the pontoon, not to provide cooling.

Claims 1 and 8 do not read on any solar conversion photovoltaic system that cools the photovoltaics conventionally, *i.e.*, by means of cooling liquid forced through structures internal to the support structure. Cooling "through thermal contact with an exterior of the support structure" is an entirely different concept from such conventional cooling. It is not only simpler and less expensive to fabricate, but it avoids a need for coupling cooling pipes to the pontoons. It also greatly reduces the risk of damage to the expensive photovoltaic cells in the event of failure of the complex cooling liquid transport system.

Thus, it is respectfully submitted that Cluff and Laing, even taken together, fail to disclose, teach or suggest all of the elements required by Claim 1 (and similarly as to Claim 8). For this simple, clear reason the combination of Cluff and Laing fails to support *prima facie* obviousness of either Claim 1 or Claim 8.

Correctly analyzed, it is clear that Laing adds very little to Cluff. Indeed, Laing serves mainly to underscore the fact that all conventional pontoon solar conversion systems, prior to the invention set forth in the subject application, cooled concentrating photovoltaic cells by forcing cooling liquid through tubes adjacent the cells. To be sure, Laing may (judgment is reserved) suggest using the pond water as the cooling liquid, but that is not the most important distinction between Cluff and the requirements of Claim 1. The more important difference is the cooling path required in Claim 1 (and similarly in Claim 8), which is not present in either Cluff or Laing.

Supervisor Neckel's comment that perhaps Laing was unnecessary to sustain the rejection had already rendered somewhat unclear which grounds the Examiner is actually relying on to maintain the rejection of the pending claims. Since Laing fails to remedy the failure of Cluff to teach cooling as required by Claim 1, the Examiner may choose to rely instead on the original ground of rejection of the pending claims, anticipation by Cluff. In doing so, given the complete absence of any teaching, disclosure or fair suggestion of the required

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cooling features in Cluff, the Examiner might choose to rely on an assertion that the claimed cooling features are inherent in Cluff. The following paragraph supports a conclusion that the features are not inherent.

Demonstrating that the cooling features required by Claim 1 are "inherent" in Cluff would require the Examiner to produce evidence that the omitted cooling features not only could be, but would necessarily have been present, even though not remarked upon. "Such evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill," *Continental Can Co. USA v. Monsanto Co.*, F.2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991), as cited in MPEP 2131.01(III) (emphasis added). Laing describes cooling almost identically as taught in Cluff, *i.e.*, by forcing liquid through cooling tubes, so such cooling is clearly practical, and useful with pontoons. The availability of this alternative to the cooling features required by Claim 1 negates a finding that the required features are "necessarily present" in Cluff's pontoons. The negation of this requirement of inherency precludes a reasonable finding that the features are "inherent" in Cluff.

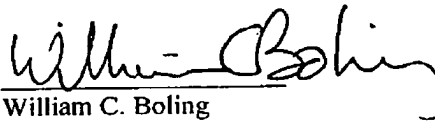
Conclusion

The correction explained in the remarks set forth above provides solid reasons for the Examiner to withdraw or revise the grounds of rejection on which she chooses to rely in maintaining rejection of the pending claims. Moreover, the ground(s) to be relied upon had already been rendered somewhat uncertain by Supervisor Neckel's comments during the interview of April 14, 2008. As such, the Examiner is respectfully requested to reconsider whether to maintain any rejection of the pending claims, and further to set forth any such remaining grounds with clarity in a paper of record so as to reduce confusion during the upcoming appeal. Finally, the Examiner is respectfully requested to communicate such relied-upon ground(s) of rejection to the undersigned telephonically, in view of the impending deadline.

To the extent that the error described in the remarks set forth above has made prosecution of the subject application more difficult than necessary, the undersigned offers his sincere apology.

Respectfully submitted,

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4/22/2008
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